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Original Lectures.

LECTURES ON NEW REMEDIES AND THEIR THERAPEUTICAL APPLICATIONS.

DELIVERED AT THE

NEW YORK MEDICAL COLLEGE AND CHARITY HOSPITAL.

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LECTURE IV.

IODINE AND ITS COMPOUNDS.

This is one of the most important medicinal agents that I shall have occasion to bring before you. In the limited time remaining to me, I hardly know how to do justice to my subject; it is necessary for me to be brief, and yet in being so I fear I may leave untold much that ought to be said. M. Courtois discovered iodine in experimenting upon the mother liquors of kelp, in 1812. His discovery has been one of the most valuable of the present century, for, although it has not been in general use for more than a single generation, it has conferred inestimable benefits upon millions of suffering persons, and has enabled us to control and relieve diseases that were before beyond our power of cure. Medicine has in this agent given to the arts one of its richest and most brilliant treasures; for by its means Nature's own image is depicted in indelible forms, and the loved features of our absent or dearest lost ones remain present before our eyes, as well as present in our deepest memories. Medicine here gave to the arts a substance without which Daguerre would have been unable to fix the beauteous images painted by the delicate pencil of the sunbeam; and medicine may justly be proud of the wonderful advances of science, for in this as in many other discoveries, she has been their prime cause and most efficient promoter.

Iodine is extracted from the mother liquors of the kelp, which is prepared by drying and incinerating the deep sea plants. It is found that the sea weeds that grow above low water mark are less rich in iodine than those which grow in the deeper parts of the ocean. They also contain a larger proportion of soda, and a less amount of potash, than the deep sea plants. The plant upon the shores of Europe which contains the largest amount of iodine is said to be the palmata digitata, or tangle, and this is found in the greatest abundance upon the coast of Scotland and Ireland. These plants are collected, dried, and burned in rude kilns, and the ash, which is fused into solid masses, is called *kelp*. This kelp is dissolved in water, concentrated by heat, and at a certain density the salts of potash crystallize from it; the soda salts, being more soluble, require further concentration, when they also crystallize from the solution.

After nearly all the potash and soda salts have been removed, there remain in the mother liquor impure iodides and iodates of soda and potash, which are decomposed by adding sulphuric acid to neutralization. The liquid is then thrown into a still for sublimation, heat applied, oxide of manganese added, and all the lutings carefully closed: the sublimation is conducted slowly, and the iodine, in an impure form, is found in the receivers. The yield will average about ten pounds of iodine for every ton of kelp employed, though when the kelp is prepared with care, twenty pounds of iodine are sometimes obtained from a ton. The yearly value of this kelp prepared in Scotland, Ireland, and France, is estimated at about $470,000, and of this amount $300,000 is the value of the iodine. The quantity of iodine obtained is about 100,000 pounds a year. This, on account of its impurity, is carefully resublimed. Iodine is found in other substances besides the sea weeds; before the discovery of iodine, burnt sponge was used for some of the purposes for which iodine is now employed.

It exists in minute quantities in sea water, and owing to this fact, it is found in the oil and fat of all animals and fish living in the ocean. It is found also in some of the salt springs, and in many of the medicinal waters. It has lately been ascertained that it exists in considerable quantity in the Peruvian nitrate of soda, and it is probable that its extraction from this substance will be remunerative.

Iodine is in brilliant crystalline scales or plates, with a bluish-black metallic lustre; the scales are soft, and are easily broken. Its odor somewhat resembles chlorine, though it is less suffocating. Its taste is acrid and unpleasant. It is a non-conductor of electricity, and a negative electric. Its specific gravity is 4·95, and its chemical equivalent 126·3. It evaporates at ordinary temperatures, especially when damp. It sublimes at a heat below 212°, fuses at 225°, and boils at 347°. Its vapor is of a beautiful violet color, hence its name. It is soluble only in 7000 times its weight of water, to which even in this quantity it communicates odor and color. Its solubility in water is very greatly increased by adding chloride of sodium, nitrate of ammonia, or iodide of potassium. It dissolves in alkaline solutions, forming iodides and iodates. It is very soluble in ether and alcohol. Its range of affinities is very extensive, as it combines with most of the non-metallic, and nearly all the metallic elements.

Iodine in any considerable quantity can be detected by its characteristic purple vapor; but when in very small quantities, may be detected even to 450,000 times its weight in water, by the blue color it imparts to starch. Of this test we will speak more at large hereafter.

Adulterations.—Iodine in small quantities is frequently adulterated by dishonest venders, but as it comes from the manufacturers its chief impurity is water, of which it sometimes contains as much as twenty per cent. It is difficult to separate the water from it completely, but it should not contain over two or three per cent. Iodide of cyanogen is generally present in the commercial, but not in the purified variety.

Physiological Effects.—Iodine is but seldom administered in a pure state, but is generally given in combination; but even if administered in a state of purity in medicinal doses, it no doubt quickly enters into organic or saline combinations, and in this way becomes milder and less irritant both in its local and general effects. Its local action is that of an irritant, whether applied to the mucous membranes or to the cuticle, and this effect may result whether applied in a solid, liquid, or aeriform state. It is at times very difficult to tell in what manner iodine affects the system, for it may be administered in small doses for a length of time without producing any noticeable alterations either in the functions of organs or on the secretions. There are many instances in which it is given for weeks, or even months, with no other perceptible effects than the amelioration or removal of the disease for which it is taken. In these small doses it generally improves the appetite, and this improvement continues until the system seems to be saturated; it then produces gastric disturbance. Even in large doses, its first effects are often a great improvement of appetite; but if these doses are continued, there is anorexia, general symptoms of dyspepsia, unpleasant eructations, gastric irritability, frequently attended with colic and diarrhœa; the pulse becomes frequent and irritable, the tongue furred, the skin hot and dry, the respirations are more frequent, there is a peculiar sense of constriction and irritability about the throat, and much headache. If the medicine is discontinued, these effects soon pass over. As to its physiological action on the secretions, its effects are very variable. Some persons notice a large increase in the quantity of urine, while others state that the secretion is diminished, but that the flow of saliva is greatly increased. Again, it is said by some to largely increase the secretion of bile. It has been asserted that long-continued administration of iodine produces absorption of the mammæ and testicles, and there are probably a few cases reported where these glands have become atrophied and diminished; but such cases are

very rare, for Magendie, Lugol, and Pereira state that they have never met with such a result. By administration of iodine in full doses there is an effect occasionally produced called *iodic intoxication* or *iodism*, in which the nervous system is disordered, giving rise to headache, palpitation, ringing in the ears, dimness or disordered vision, irritability, fever, and wakefulness. Lugol, who administered iodine more largely than any one in his day, frequently produced these symptoms, not only by its internal use, but by means of iodurettted baths. Manson also mentions similar cases. But these symptoms are the results of careless administration, and need not be, and I think are not frequently produced at present.

Modus Operandi.—Iodine is rapidly absorbed into the circulation, and can be detected in the secretions. From many experiments that have been performed, it appears, that it is first to be detected in the saliva, then in the urine; sometimes it may be detected in the perspiration, but not as a rule, unless it has been taken for some time. Claude Bernard injected it into the jugular vein of a dog, and detected it immediately in the saliva, though it was not to be found in the urine until after the expiration of several hours. Schottin also found it in the saliva in a few minutes after administration, after some time in the urine, but in the perspiration it was not found until the fifth day. He gave half a drachm daily of iodide of potassium. Cantu has found it in the urine, sweat, saliva, milk, and blood. Meeting a few years ago with a person who had a salivary fistula, I tried some experiments to ascertain the rapidity with which iodine could be detected in the saliva and urine. I administered half a drachm of iodide of potassium in powder enveloped in a small piece of bibulous paper, which was put into the throat and immediately swallowed and followed by a gill of water. The bladder had been previously emptied, and a small catheter introduced. The salivary secretion was immediately wiped away with a clean wet cloth, and one minute after the water was swallowed the saliva was collected and allowed to run into the spoon for two minutes. It was tested and gave evidence of the presence of the iodide. At the expiration of five minutes the urine was tested, but gave no traces; but in seven minutes after drinking the water, the urine ran off more freely, and all that passed from the seventh to the tenth minute was tested and showed the presence of the iodide. The iodide could be detected in the saliva thirty hours after administration, though not a trace of it could be found in the urine. At another time I administered to him twenty drops of a saturated solution of tincture of iodine in gelatine capsules, followed as before by a gill of water. In three minutes it was found in the saliva, but it was twenty-two minutes before it was found in the urine. Pereira thinks that it produces its action upon the system by liquefaction of the blood. Billing states that it produces contraction of the capillary vessels, and others attribute its effects to direct stimulation (or rather increased action) of the absorbent system. There is but little doubt that all of these effects are produced, and the gentlemen who have advanced these separate theories have not adopted the usual custom and overstepped the mark, but have fallen short of it. In adopting the classification of Headland, and placing iodine in the third order of the second division of hæmatic medicines, we have already proved to some extent that he has correctly placed it under the division catalytics. We have given proof that it is absorbed into the blood through the coats of the stomach and intestines, that it enters into the portal circulation with great rapidity, and is found in a short time in several of the secretions, and also in the excretions; thus fulfilling the action of this class of remedies, by first entering into the circulating fluid, and counteracting a morbid material or process, and then passing out of the body. We have also given proof by the experiments performed with tincture of iodine that it has undergone a change in the system, and has entered into new combinations, probably both organic and chemical. Independent of its catalytic effects, it might to a certain extent be placed under the division of restorative hæmatics, for we find it so universally diffused in nature that it must to some extent be one of the constituents of the system. We have proof, then, that before it produces its peculiar action on the system it combines with organic substances, and is absorbed into the circulation; we have also proof, by more than one of its effects, that it hastens and increases the metamorphosis of tissue, and by this means removes from the body the morbid materials which gave rise to the disease. We see also in most instances a perceptible increase in one or other of the excretions, though in this respect it is not always the same. To prove that it hastens and increases the metamorphosis of tissue, let us watch its effects in both small and large doses. We find some morbid material or process in the system which produces a state of ill health; it is foreign to our purpose to inquire whether this material has been introduced into the system from ingesta, or is owing to a deficient power in certain organs to carry off the disintegrated and no longer needed substances. If in this state small doses of iodine are administered the only noticeable effects that it produces is an increased appetite, an increase in the specific gravity of the urine, and an absorption and removal of the materies morbi, with an increase in weight and renewal of health. But instead of giving it in small doses, let us see what are its effects when we administer it in large ones; after the first little increase of appetite caused by its stimulating effects, there is prostration and irritability, with loss of appetite. Absorption of the morbid material also takes place, the urine increases in specific gravity, and emaciation and loss of weight are readily noticed. In both instances we have then an increase in amount and rapidity of the metamorphosis of tissue, and this certainly in the first place without any stimulant action, as we understand the action of stimulants. That it should improve the appetite, and increase the strength and weight, when given in small doses, is readily explained, for we well know that all means that increase a healthy metamorphosis of tissue, call for a corresponding effort of the nutritive process. In the second instance, where large doses are given and the metamorphosis of tissue thereby increased, increase of appetite and weight are prevented by the irritant effects of the medicine on the digestive organs. That it acts by increasing the metamorphosis of tissue we see also by its constant local action. An enlarged gland is painted over externally with tincture of iodine, and under its application the tumor disappears. I know that it is asserted that this is owing to its stimulating or counter-irritating effect; but it is not so, for the tumor is not discussed by application of tincture of capsicum, aqua ammonia, or nitrate of silver.

Therapeutical Application.—Although iodine was discovered by Courtois in 1812, it was not used in medicine until 1820; on 25th July in that year Dr. Coindet, of Geneva, read a paper before the Society of Natural Sciences of Geneva on the use of iodine in the cure of goitre. He was led to investigate the action of iodine on goitre from the known beneficial effects of burnt sponge in that disease, the curative effects of which were entirely owing to the small amounts of iodides and iodates contained in the ashes. As iodine was found so efficacious in goitre, it was soon used with equally beneficial results in scrofula; and to Brera, Lugol, and Manson, we owe much of the knowledge we now possess of it in this disease. As it was a new remedy and really possessed extraordinary and valuable powers, it was employed by many in every kind of disease, and by some vaunted as a universal specific, and by others condemned as injurious and useless; but as we learn more of its physiological action and modus operandi we know better how to determine its real value. Dr. Williams, of the London College of Pharmacy, first announced its great value in the treatment of the tertiary form of syphilis in 1834.

Local Effects.—Iodine is generally used locally, either in the form of tincture, compound tincture, or in solution in glycerine or collodion; we will give you the most appropriate formulæ for preparing these solutions in the proper place. Iodine was first used as an external application in goitre, and several cases were cured by this means without its internal administration. It has been for many years extensively used as a local application to glandular enlargements, especially those in the various forms of scrofulous disease. It is a very common thing to see children of a scrofulous diathesis with enlarged lymphatic glands, and those about the neck are more frequently diseased than in other parts of the body. Although from experience the physician knows that the local application of iodine is of great service in the treatment of these enlargements, he is frequently prevented from applying it because it leaves a yellow unpleasant-looking stain upon the skin. This appears in some instances to be an objection to its use, for young ladies are unwilling to have so conspicuous a mark upon them, but this difficulty may be nearly always overcome by wearing a broad velvet band around the neck, and upon the spot where the band covers the tumor a piece of oiled silk should be placed; this cover of oiled silk assists the action of the iodine.

It has been used very extensively of late years as a local application in strumous ophthalmia. In this disease the little patients are very frequently troubled with great intolerance of light; in addition to the other treatment that is required, tincture of iodine is applied over the orbit and occasionally around the eye, and very great benefit is experienced from the local application. I have on several occasions seen perfect relief within twenty-four hours, by the local application of iodine alone in this photophobia scrofulosa. I have no doubt you all avail yourselves of the excellent opportunities afforded you for instruction at the New York Eye and Ear Infirmary; you also have peculiar and unusual opportunities of studying diseases of the Eye and Ear under the able teachings and clinical explanations of your earnest and learned Professor of Ophthalmic and Aural Surgery. You have at these clinics, and at those of the Eye Infirmary, seen many little patients whose first appearance denoted the trouble under which they were laboring. Every effort is made by them to exclude the light; and the hanging head, knit brow, and elevated upper-lip and nose, are legible marks of this strumous ophthalmia, accompanied with photophobia. In many of these cases you will be astonished to see such an amount of intolerance to light, with so little visible symptoms of disease within the eye itself. In these cases you will find marked benefit by the local application of compound tincture of iodine over the orbit and around the eye; underneath the eye you should make but one slight and quick application of it, but over the orbit apply it until the skin is deeply colored with it, and over the whole make one application of iodine in collodion. Insist upon the child being kept as much as possible out of doors, and you will frequently see in twenty-four hours a removal of the unpleasant symptoms. In scrofulous otorrhœa local application of the same substances behind the ear are equally beneficial as in diseases of the eye, but in both of these affections be careful not to apply the iodine on the inflamed and excoriated skin over which the unhealthy discharge has been flowing; and above all, be careful not to let the tincture run into the eye. In scrofulous persons the tonsils are nearly always enlarged; a local, internal application of tincture of iodine is generally more successful in removing the enlargement than any other application. But there are many instances, with children, where an internal application cannot be made; in these cases an external application over the tonsils will in time relieve the difficulty. In swellings about the large joints, especially those of a chronic character, free and frequent application of the iodine will be found of great advantage. It will be equally serviceable also in the swelling of the smaller joints and in paronychiæ. It is frequently used with advantage to swollen bursæ, corns, chilblains, furuncles, etc. When thoroughly applied in the first stage of non-syphilitic inflammation of the inguinal glands, it will generally check the inflammation and prevent suppuration. In the early stage of inflammation of the breast it will frequently arrest its progress. It has been recommended on good authority as an excellent application directly to the wound in the bites of snakes and venomous reptiles.

(*To be continued.*)

Original Communications.

ON CERTAIN OF THE ACCIDENTS WHICH MAY FOLLOW VACCINATION.

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Sixty years have passed away since the practice of vaccination was publicly inaugurated at the small-pox hospital in London. Till the close of the eighteenth century, variola was a disease from which no person could ever consider himself secure; yet, when Jenner announced that discovery which has rendered his name immortal, his statements excited the incredulity, contempt, and unmistakable hostility, not only of the uninitiated vulgar, but even of men of education and established reputation. In London was organized a society which appealed to the public to second its efforts in behalf of humanity against the "curse of cow-pox." Fearful narratives of death resulting from vaccination were published, and widely circulated by the opponents of Jenner. The physician to the hospital at Chelsea, Dr. Mosely, asserted that he had seen children "die of cow-pox without losing consciousness of torment till their last gasp." Dr. Rowley, physician to the Marylebone Infirmary, published the details of fifty-nine cases of death by "cruel vaccination," and declared it his belief that "when humanity shall reflect upon the crowd of victims diseased for life, who for ages yet to come will transmit to their posterity chronic maladies of a bestial origin, it will be enough to freeze the soul with horror. It is the duty," he continues, "of honorable practitioners of medicine to arouse the human race to a sense of the multiple and varied evils that await it under the form of this mild catholicon, this sugared potion, which bears a fatal poison in each destructive molecule." It was gravely asserted that certain vaccinated children had acquired the brutal characters of animals; and, in testimony of the brutalizing and transforming powers of the vaccine virus, at the shop-windows were actually exposed the portraits of persons with the eyes of oxen and the cheeks of cows!

This happened more than half a century ago. The experience of sixty years has refuted the objections of men like Mosely and Squirrell, yet there is still lingering in the popular apprehension a trace of that prejudice which was once so deeply rooted: a prejudice which owes its perpetuity to an imperfect comprehension of the relations that exist between a cause and its effect. The zealous *anti-vaccinarian*, who so confidently presumed the brutalizing consequences of inoculation with matter from the udder of a diseased cow, felt no fear of similar consequences as the result of the daily use of milk drawn from the same animal, nor did he hesitate over meat from the same pasture. It were more reasonable to suppose that the brute form and the human form of a disease that might be common to man and to the lower animals, would be marked by such differences only as are analogous and proportioned to the difference which exists between the human organization, and the organization of the brute; in other words, that the exciting cause will produce, in both cases, effects which shall be the same, plus or minus the essential difference between man and brute.

But, however that may be, the prejudice does exist; and, even among people who do not resort to public institutions of charity, vaccination is often blamed for many a congenital defect of body or mind. It is asserted that scrofula, erysipelas, syphilis, idiocy, imbecility, and a host of other ills, are not unfrequently transmitted from person to person by the act of vaccination—evidently the old objection couched in modern language.

Now, though no enlightened person will coincide with the opinions of those who would charge upon the act of vaccination so many of the ills to which flesh is heir, a due consideration of the subject constrains us to admit that there is a color of truth in the objections which have been raised against the practice. *Children*, and grown persons too, *have died* after vaccination, *without losing consciousness of torment till their last gasp;* an untimely end has terminated the protracted misery of individuals whose life was serene till the poisoned lancet introduced into their veins the germs of a disease more accursed than any other that afflicts the human race. At the same time it becomes evident that many of these accidents have resulted from causes that are easily avoidable, while not a few result from the operation of the same laws that regulate the most ordinary pathological events. That we may fully appreciate this fact, it is in the first place necessary to secure a clear understanding of the essential characteristics of the vaccine disease, as it manifests itself in the form of a localized inflammatory process occasioned by the infliction of a poisoned wound. The natural history of the disease itself is learnedly described by a multitude of authors: it is, for the present, sufficient to remember that after inoculation with vaccine lymph the wound remains quiet for about three days. On the third or fourth day it becomes congested, and a papule is formed by this congestion. During the four ensuing days the papule is converted into a vesicle by the exudation of serum and coagulable lymph. It is not before the ninth day that the stage of true pyogenic and ulcerative inflammation is reached; soon after which, the inflammatory process being completed, cicatrization occurs, and the scab is discharged, between the eighteenth day and the twenty-first.

Having, then, to deal with a process which, though specific in its nature, is a truly inflammatory process, it is right to infer that if it be excited in the presence of any abnormal conditions, it will be modified in accordance with the laws which are ordinarily called into operation by the existence of such abnormal conditions, and that it is through an acquaintance with the nature of these modifying conditions that we may hope to find the way of escape from the dangers to which the process is liable.

These modifying conditions arrange themselves in two natural classes:—conditions which affect the essential nature of the existing cause (the vaccine virus), and conditions which determine the physical structure and constitution of the individual in whom the process is exhibited;—their tendency, when unfavorable, is in the same direction, resulting in the most frightful exaggeration or even the entire perversion, of the original inflammatory affection.

It is to the first of these categories that our patients refer their complaints when unfortunate consequences follow the act of vaccination: it is by a cautious avoidance of the causes contained in the first, and by a judicious deference to the conditions of the second, that we who practise the art may hope to secure at least the approbation of an enlightened judgment.

Of the various causes by which the vaccine virus may be rendered noxious, one of the rarest consists in the absorption of deleterious substances endermically applied to the individual from whom the virus is derived. It is related by Dr. Huder (*London Med. Gaz.*, vol. xiii., p. 440) that five children were vaccinated from the arm of a healthy child, which had been vaccinated about seven days previously. Three different clean lancets were used in the vaccination of four of these children; the fifth, living at some distance from the others, was vaccinated by means of ivory points dipped in the fresh lymph. Each one of these five children became, almost immediately, the subject of great constitutional disturbance: in not one of them was anything like a vaccine vesicle produced. Their arms were immensely swelled and œdematous; one child had convulsions; in two of them abscesses formed; and in every instance there was an alarming degree of febrile excitement. It was found, on inquiry, that the child from whom the virus had been taken, was healthy; but on the evening before the vaccination from its arm, the mother had applied a blister behind its ear, for the relief of a pain in that region, which was probably only a temporary effect of the irritation produced by the vaccine vesicles. Notwithstanding the application of this blister, the vesicles had seemed to be perfect when lymph was taken from them the next day, and, with the exception of a slightly unusual degree of opacity, the virus had appeared to be in a proper condition for use.

These cases are remarkable, and, were they unique, might easily excite our suspicion that some predisposing cause other than the concurrent action of cantharides and the vaccine virus, was the real agent in the production of such an unruly inflammation. It was, however, observed in France early in the present century, that the mode of vaccination by means of a blister or a thread was more than any other mode liable to be followed by suppuration and spurious pustulation. M. Husson, a writer in the *Dictionnaire des Sciences Médicales* (vol. lvi., p. 423), records the history of two persons who were vaccinated by the application of lymph to a surface which had been blistered with cantharides. Serious ulceration was occasioned in each instance; the wound became greatly inflamed, and degenerated into ulcers which, at the end of the sixth day, were sloughing extremely. It was only after the expiration of two months of active treatment that these patients recovered.

Another cause of danger consists in the mingling of purulent matter with vaccine lymph, a circumstance which usually results from the use of virus drawn from a pock which has reached the stage of pustulation. The formation of pus ordinarily occurs about the eighth day, consequently it is impossible after that date to procure a pure albuminous lymph. The nature of this pus will be influenced by all the circumstances which affect the individual who is the subject of the inflammatory process, and is, consequently, liable to vary, from the blandest of fluids to an irritating liquor that shall resemble the most virulent of poisons. Such an accident is of course rare at the present time, but it not unfrequently occurred during the early experience of vaccination. The first instance on record fell under the observation of Dr. Wollaston (*Med. and Phys. Journal*, vol. iv., p. 488), who saw nine persons, residents of a parish near London, who had been vaccinated Oct. 31st, 1800, with matter taken from a vesicle at a very late period in its course. The virus had a purulent appearance when it was taken from the arm. This inoculation produced extensive erysipelas, which spread rapidly from the point of vaccination, accompanied in many instances by considerable constitutional affection, which was followed in most of the cases by an ulcerative process, and in some by a tendency to gangrene. Of a large number of persons who were vaccinated, about the same time, with *other* lymph, not one experienced the slightest evil effect. Two other persons, who had been vaccinated eight days previously, manifested the same unfavorable symptoms after an attempt to procure lymph from their vesicles with the same lancet. None of these cases proved fatal, though their course was painful and tedious. Occurring at an early period in the history of vaccination they attracted much attention at the time, and a committee of medical gentlemen was appointed to examine the particulars of so unfortunate a result. That the symptoms were occasioned by introduction of a morbid poison into the system cannot be doubted. The vesicle from which the lymph was taken had assumed a pustular

character; that its contents had undergone some poisonous modification appears equally certain. Had the lancet been originally in fault, the person from whom the matter was taken would have been as liable to unfortunate consequences as were the two persons from whom lymph was afterwards taken with the same instrument.* Had any epidemic or accidental cause been active at the time, it is morally certain that other vaccinated individuals would have been affected in like manner. The precise nature of the transformation undergone by the virus is of course unknown: it is concealed by the same veil of mystery that envelops the whole subject of morbid poisons.

That the purulent contents of a broken-down vaccine vesicle may produce the most serious results, when inoculated into the system, is further illustrated by the following extract from the writings of Dr. Waterhouse of Cambridge, Mass., one of the pioneers of vaccination in the United States:—"During the autumn of 1800, a singular traffic was carried on in the article of kine-pox matter, by persons not in the least connected with the medical profession. * * * I have known the shirt sleeve of a patient, stiff with the purulent discharge from a foul ulcer, made so by unskilful management, and full three weeks after vaccination, * * * cut up into small strips, and sold about the country as genuine kine-pox, coming direct from me. Several hundred people were inoculated with this caustic animal poison, which produced great inflammation, sickness, fever, and, in several cases, eruptions."† (*Med. Repository*, vol. v., p. 375.) It is very probable that many of these cases were much aggravated by putrefactive decomposition of the lymph which was thus carried from place to place, without precaution against the effects of heat and moisture; a consideration which naturally directs our attention to a third cause, by which virus may be rendered noxious. Like all other substances of animal origin, it is liable to putrefaction when exposed to the air, during which process a poisonous element, analogous to the *cadaveric poison* evolved in bodies after death, is called into existence. Inoculation with this decomposing lymph has been attended with the most disastrous effects. Mr. Wakley (*Lancet*, July 10, 1852), saw two infants, one aged six months, the other two months, who were vaccinated at the same time with lymph supplied by the London Vaccination Hospital. The lymph had been taken from a healthy child, on the eighth day, and had been deposited for preservation on a sharp pointed cone, that formed a part of the stopper of a bottle. In both cases, the arm soon became greatly inflamed; the eldest child died on the fourteenth day with sloughing of the wound; the younger infant recovered after a long illness, attended with formation of abscesses in the joints and in other parts of its body. The remaining lymph was submitted to a microscopical examination, which proved that it had been completely decomposed, and was unfit for use, though it had been taken between thirty and forty hours only previous to its employment for the vaccination of these children. The victims of a similar misfortune recently occurring in our own country were more numerous, as appears from the Records of the Middlesex North District Medical Society.‡ About the 1st of February, 1860, the authorities of Westford, Mass., procured from the city physician of Boston, a number of vaccine scabs which were certified to be from clean and healthy children, perfectly free from extraneous matter, of a bright mahogany color and as good, apparently, as any ever used in Boston. These scabs were placed in the hands of a physician, residing at Westford, who proceeded to make use of them in the following manner:—On the 13th of February, two or three of these scabs were dissolved with snow-water in a phial; on the next day a thread was put into this solution, and was allowed to soak in it. A small portion of the thread was introduced with the dissolved lymph into the arm of each person who was vaccinated, *the phial being, in the meantime*, carried *about in the pocket of the physician*. During the week following, nearly fifty persons were vaccinated with the virus thus prepared, of whom all experienced bad results in a greater or less degree of erysipelatous and gangrenous inflammation. In no case was the true vaccine disease excited; from the very first moment after insertion of the virus, pain, and a tendency to inflammation of a low grade, were present. A large number were rendered seriously ill; and three persons, who were past the prime of life, and who were in feeble health, died in consequence of the terrible severity of the disease which had been thus excited. The symptoms were precisely those which follow inoculation with the cadaveric poison of the dissecting-room—a fact which a moment of reflection would have easily anticipated. We can only wonder at the carelessness, to use the mildest form of expression, of a person who could use, for purposes of vaccination, matter that was so unmistakably putrid, that "it emitted a most offensive smell when the cork was removed from the phial in which it was kept."*

* The great difficulty with which a poisoned instrument is cleansed is well known to all who have practised dissection.

† An example, quoted by Dr. Bradley from the ancient experience of inoculation for small-pox, bears directly upon this subject: "A professional gentleman of the first rank in London, many years ago inoculated a child with variolous matter so very far advanced that he took it from under a scab. It produced a very violent erysipelatous inflammation in the arm, which gradually extended almost over the whole body. The arm ulcerated, and the disease terminated in an anasarcous swelling of the left leg and thigh, and lasted six months. It yielded at length to sea-bathing, when the child was again inoculated with *perfect* variolous matter, which produced the small-pox as completely as if the constitution had not felt the influence of the imperfect." (*Med. and Phys. Journal*, vol. iv., p. 489).

‡ *Boston Med. and Surg. Journal*, March 8, and March 24, 1860. See also the *Taunton Daily Gazette*, March 12, 1860.

* During the fall and winter of 1859, several persons in New Hampshire were vaccinated with scabs which had been previously dissolved in water. They were made quite sick for a long time, having unhealthy sores with eruptions at and near the points of vaccination. These sores were difficult to heal, and remained for weeks, in some cases for several months. In no case did the arm, after recovery, present any indication of the occurrence of true vaccine disease. (*Boston Med. and Surg. Journal*, June 7, 1860.)

CHARACTERS OF DIPHTHERIA.

By A. C. HAMLIN, M.D.
SURGEON 2D REGIMENT MAINE VOLUNTEERS.

It is a well established fact that the types of diseases observed in great armies are often so mingled and masked, that we cannot discriminate them clearly, or even classify, without giving to them a compound name. This mysterious blending or alteration of character is not confined to a single order or class of disease, and neither are the monorganici or zymotici alone affected. Many ascribe this singularity to pythogenic causes or miasmatic influence; but Armand, of the Imperial Guard, maintains, by reason of experiences and observations in Algiers, Italy, and the Crimea, that, for a solution of the question, we must look to those variations of temperature which he calls thermo-electro-hygrometric, etc.

In regard to these phenomena and to the hypotheses of Armand, we propose to discuss them from time to time in a series of casual notes, with such data as fall and have fallen within our limited range, trusting that a few golden grains may be found amid the chaff.

Since the commencement of the campaign, some thirty cases of diphtheria have been observed by us, most of which have been so obscure and complicated as to render diagnosis perplexing, and often inclining us to doubt whether the malady merited a distinction from some other phlegmasias of the throat by reason of functional symptoms and physical signs. Rarely did it commence with the pellicle of Bretonneau, though it afterwards assumed many of the peculiarities of the disease in an advanced stage. Sometimes the exudation appeared like cryptogamous vegetation; then, again, there were ulcerated fissures or irregular patches with flake-like lymph. All the cases appeared during or after wet and stormy periods, when the atmospheric variations were sudden, and the electric oscillations considerable. All ended in resolution, without serious injury

to the system except one, in which instance death ensued from hæmorrhage of the palatine or pharyngeal arteries. The enlargement of the cervical glands was often very great, with occasional abscess; but yielding to stimulants and absorbents, it gradually returned to natural size. The attending pyrexia and constitutional disturbance were in most cases slight.

The treatment varied from strict antiphlogistic to stimulant, or to a combination of both, which seemed to be the most efficacious. When the ulcerations were clear of fibrinous exudation, strong solutions of nitrate of silver produced their accustomed healthy effect; but whilst it remained (and often it could not be detached) the strongest cauterization of iron or silver made no impression, as they were not able to penetrate the effused lymph. But small fragments of ice, held in the mouth in contact with the disordered portion, proved of the greatest value when used in conjunction with stimulating embrocations around the neck.

The last case is yet under observation, and may not be uninteresting.

Private C., æt. 19, 2d Maine, joined the National forces in Virginia, late in December, as new recruit; was attacked with rubeola, shortly after with severe typhoid symptoms, but became convalescent after a few days' treatment. Three days passed in good progress, when soreness of the throat and difficult deglutition were experienced. Examination disclosed buccal and palatine membranes, velum, and fauces, red and vascular, tonsils swollen, muscles of the neck stiff and painful, sub-maxillary gland enlarged on left side, tongue red and clean at point, but "langue perroquet" at base (typhoid trace), respiration good, appetite affected, pyrexia slight.

Treatment.—Chlorate of potass gargles, iodine embrocations externally, inhalations of steam, and carb. ammonia and brandy internally, high diet. 26th.—Disease progressing rapidly, pellicle appearing on left tonsil, cauterization with solid nitrate of silver, continuation of previous treatment. 27th and 28th.—Disease increasing, both tonsils now covered with patch of tenacious and membranous exudation (inodorous by chlorate of potass), both maxillary glands much enlarged, deglutition very difficult, respiration fair, anorexia, debility increasing, courage good. 29th—No improvement, caustics discontinued, and small fragments of ice were placed in the mouth near the affected parts every half hour; no other change in treatment. 30th.—Slight improvement, glands lessening. 31st.—Deglutition and appetite improved, small quantity of milk drunk, debility great. Feb. 1st.—Attacked with profuse diarrhœa during the night, and at morning appeared extremely weak, unable to speak except in whisper, throat much swollen, less painful and less red and vascular, exudation apparently unchanged, stomach very irritable and unable to retain anything but milk, bitter infusion with bi-carb. soda every four hours, camphor and opium frequently to check diarrhœa, sponge-baths of whiskey and water along spinal column to arouse nervous energy, courage faltering. 2d.—Diarrhœa unchecked, anorexia complete, frequent vomiting, extreme nervous and muscular prostration with feeble and quickened pulse, deglutition and respiration good, glands much lessened in size, eye sunken and glassy, brow contracted, face pale and haggard, with peculiarities of facies Hippocratica, slightly comatose; prognosis, death.

Sponge baths continued, carb. am. and brandy frequently, enema of chicken broth with laudanum three times during the day, blister to epigastrium.

3d.—Nausea less, able to drink a small quantity of milk, diarrhœa checked, throat easy, tongue dry and brown, facial expression and general condition unchanged, treatment same, with small draughts of milk. 4th.—Condition improved, eye brighter, pallor of face less, throat easy, less inflamed, but exudations still fixed, tonsils lessening, treatment continued. From this date the recovery was extremely rapid and without relapse, the appetite returned in force, and with it strength and courage, the exudations gradually passed away without exposing the ulcerated surfaces beneath, or leaving eschars of note.

NEW MANNER OF PLUGGING THE VAGINA.

By E. P. BENNET, M.D.

DANBURY, CONN.

In placenta prævia and in cases of abortion, the life of many a female is saved only by the judicious use of the *tampon*. This operation, so efficient, is many times a troublesome one, both for practitioner and patient, especially when the substances introduced have been saturated with astringent solutions, as they usually should be to render them doubly efficient. In early life I found much trouble in this respect, as the alum, or other astringent, so corrugated the parts as to render their introduction difficult and painful. Now, by using a common glass speculum, all trouble is at once removed. You can pack the vagina to its utmost capacity in a single minute without any trouble or suffering to your patient. In cases of abortion, in two instances where a small portion of placenta remained beyond the reach of instruments, and where hæmorrhage was long continued and alarming, I succeeded in saving the women by plugging the os uteri with a piece of sponge—an operation easily done through the speculum, but almost impossible without it. One of these ladies was and now is living in your city, and was reduced to the lowest condition. This plan may have been pursued by others; but so far as my recollection serves me, I have not seen it mentioned.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, January 8, 1862.

DR. A. C. POST, PRESIDENT, IN THE CHAIR.

BILIARY CALCULUS.

DR. FINNELL presented a specimen of biliary calculus with the following history:—The patient from whom the specimen was removed was a lady, æt. 40, who had been attended by Drs. Joseph M. Smith, Stillé, and Young. She had been ailing for several weeks past with symptoms referable to the stomach; vomiting of large quantities of bile was almost constant, as was also pain in the epigastrium. There was no icterus present, neither any of the other symptoms which belong to hepatic derangement. Death was occasioned by exhaustion. On post-mortem examination, in the situation corresponding to that of the gall bladder, was found a large gall stone, enveloped by a thick cartilaginous membrane. The tissues in the immediate neighborhood were agglutinated together, and the pyloric extremity of the stomach was much thickened; all of which was supposed to have been the results of old and oft repeated attacks of inflammation.

DR. ELIOT referred to the fact which had been communicated to him by one of the attending physicians, viz. that the tongue presented a very red and beef-like appearance.

THREE PLACENTAS IN ONE.

DR. FINNELL presented in behalf of DR. FURMAN three placentas joined in one. The case was one of triplets. The first child was delivered without any trouble, the head presenting. Before the delivery of this child the head of the second one was felt through the abdominal walls, and hence twins were promised to the woman. The second child was delivered in the course of an hour after the first, when shortly after a third one presented the foot. The length of the cord of each child varied; in the first it was about two feet, in the second but one foot, while in the third it was the shortest and thickest of all. The chil-

dren, two males and one female, were at last accounts doing well.

LOBULATED INFLAMMATION OF SPLEEN.

Dr. Bauer exhibited a spleen and heart which he had removed from a man 48 years of age. He could give little more than the post-mortem history of the case. The symptoms during the past fourteen or fifteen months divided themselves between cardiac trouble and a deep-seated immovable pain in the left hypochondriac region. On making, by request, the post-mortem examination, Dr. B. discovered the existence of lobulated inflammation of the spleen, a pathological condition of great rarity. On dividing the organ longitudinally a wedge-formed discoloration was discovered at its lower portion. The same thing was noticed at its superior portion, which, however, had not progressed so far as the other towards the perfect development of the true character of the disease. On microscopical examination the appearances were found due to simple fatty degeneration. Dr. B. experienced a great deal of difficulty in finding authorities upon the subject. Very few pathological anatomists made an allusion to it, and Virchow seemed to be the only one who gave a good description of its characters. The wedge-shape of the inflammatory process in the particular portions of the organ was due to the trabecular and convergent arrangement of its stroma. The heart was found diseased. There was a considerable atheromatous deposit around the valves; and also vegetations. The complication of disease of the heart with that of the spleen had been referred to by the authority quoted. He also supposed that the original cause of the disease of the spleen was the escape of some of the endocardial vegetations in the general circulation, which were finally arrested in the small arterial branches supplying the affected lobules.

Dr. Finnell had from time to time presented two or three specimens of spleens illustrating the fibrous disease. They were removed from persons of intemperate habits. There was no heart disease connected with any of these. The diseased masses were more or less scattered through the organ, which was usually about twice its natural size.

RUPTURE OF FALLOPIAN TUBE FROM TUBAL PREGNANCY.

Dr. Bauer exhibited a second specimen, consisting of a portion of the Fallopian tube, removed from the body of a young lady who had been married several years. She had never borne children, and for the last three or four years of her life had suffered from disturbances of the menstrual flow, leucorrhœa, etc. Of a sudden, however, she became affected with very intense pain in the right iliac region, attended with excessive vomiting. No anodyne could give her relief, and she finally sank and died. Suspicions having been aroused as to the possibility of her being poisoned Dr. Bauer was requested by the coroner to make an autopsy. The right Fallopian tube was found ruptured, in consequence of tubal pregnancy, and the whole cavity of the abdomen was filled with blood. Alongside of this rupture was an epiploic appendix lying free in the abdominal cavity.

Dr. Finnell referred in this connexion to two cases of Fallopian pregnancy which he had met with, both of which occurred on the right side. In one, the symptoms were so sudden, and the vomiting so persistent, that poisoning was suspected.

STRICTURE OF ŒSOPHAGUS.

Dr. Bauer presented a specimen of stricture of the œsophagus, removed from a patient whom he had seen but once, that being about three months previous to her death. The history given him then was that about eighteen years previously she swallowed a small cherry-pit, which, becoming arrested in the œsophagus, remained there for some little time. Since this time she had experienced more or less dysphavia, but this symptom only became distressing a short time before she saw Dr. Bauer. On examination, a stricture of the tube was discovered. Inasmuch as the cause of the disease was a simple one, it was thought that dilatation might be resorted to with benefit. As she resided some distance from the city, the suggestions for treatment were sent to the practitioner, Dr. Hammond, who had her in charge. The physician seemed to be successful for a little while, when he discovered that after each passage of the bougie, the œsophagus became hermetically sealed, so that she was unable to swallow even water until two or three hours had elapsed. She died of inanition, and on post-mortem examination there was found an abscess surrounding the œsophagus, and situated just above the point of constriction. In the right lobe of the thyroid gland a large calculus was found imbedded.

Dr. Krackowizer stated that he had seen the same case about three or four weeks before death. It was then difficult to decide which was the most urgent symptom, the dysphagia or dyspnœa. The patient stated to him that for many years past she had been troubled with difficulty in swallowing, which, however, would leave her sometimes for months. Only a very transient benefit seems to have followed the use of the bougie as advised by Dr. Bauer. In attempting to probe the stricture with his finger, Dr. K. brought up some cheesy-looking material, which on microscopic examination proved to consist of epithelial scales, and a great quantity of those fungosities known as oidium albicans. He felt a hard tumor in the region of the thyroid gland, which inclined him to the belief of the existence of epithelial cancer. He, however, thought it very probable, in the absence of the characteristic nests of scales, that the cheesy substance consisted simply of layers of epithelium from the surrounding mucous membrane. He advised, in order to prolong life somewhat, that either œsophagotomy or gastrotomy be performed, but she was afterwards told that it would even then be necessary soon after to resort to tracheotomy, inasmuch as the larynx had been firmly bound down to the adhesions surrounding the stricture. Under these circumstances the patient declined having anything done, and in the course of a couple of weeks after he heard of her death from inanition.

Dr. Post had under his care several years ago a gentleman with stricture of the œsophagus near the cardiac orifice. The patient removed from the city, and a short time after he heard that death had taken place in consequence of inanition, but that just previous to that event a large quantity of pus had been discharged. No post-mortem examination had been made, but he supposed that the abscess, as in the case just cited, was situated in the neighborhood of the constriction, and had a great deal to do in hastening the fatal result.

ENDOSTITIS OF FEMUR, ETC.

Dr. Bauer presented a fourth specimen, consisting of the knee-joint of a lady, æt. 17, which had been removed by amputation. The disease could not be referred to any injury, and had lasted but eight months. During the first three months of its existence, and up to a short time previous to her admission into the Brooklyn Medical and Surgical Institute, there had been very little tenderness and swelling of the joint; she had not suffered from any reflex muscular irritation, and her sleep had not of late been much disturbed. On her admission into the Institute, the knee was found swollen in front and in the popliteal space, but its cutaneous surface was not discolored. There was slight flexion of the joint; and distinct fluctuation over the whole of the diseased part. A puncture was made in it in order to ascertain the nature of the fluid contents of the swelling. Instead of pus escaping, as was expected, fluid blood issued from the opening. The persistent hectic and emaciation of the patient rendered amputation imperative. After the removal of the limb, a regular excavation of the apophyses of the femur was recognised, filled with blood, the source of which was not ascertained. No tuberculous deposit was found. The periosteum had been

raised from the posterior and anterior surfaces of the bone, and on the inner surface of the membrane were evident nature's efforts towards the formation of new bony material. Taking into account all the circumstances of the case, Dr. Bauer was disposed to think that the disease originated in endostitis.

Dr. Wood believed that there had been an abscess of the lower end of the femur, which had disintegrated the bone, and separated the periosteum in the neighborhood from its attachments. This separation, he supposed, had existed for a considerable length of time. All the deposit of bone alluded to could in his opinion be accounted for by the existence of periosteal inflammation. In conclusion, he asked if the spicula had been examined by the microscope.

Dr. Bauer did not think that an abscess of the nature referred to could have existed without giving rise to more symptoms than were exhibited during the progress of the disease. Nor does the cavity necessarily indicate an abscess, inasmuch as endostitis likewise produces one by circumscribed fatty decay of the cancellated structure, as he had seen it.

EXSECTION OF KNEE-JOINT.

Dr. Bauer presented a fifth specimen, which he obtained by exsection of the knee-joint of a young girl 17 years of age. She had suffered for seven or eight years with what is generally called "white-swelling," and when she presented herself at the Institute, her knee-joint was distended and filled with liquid. She had suffered very little from constitutional disturbance, complained of no great amount of pain, and very little tenderness of the part. A puncture was made, and the fluid, which proved to be pus, was evacuated. Motion of the parts was then made, when the articular surfaces of the tibia, femur, and patella, were noticed to grate against each other. There remaining no other remedy, an operation was deemed advisable. Exsection was determined upon, if the bone should not be found too far diseased. The result of the case proved the correctness of the decision. A portion of the tibia, about half an inch in thickness, and of the femur, about an inch and one-eighth, and the patella, was only removed, the rest of the bones being healthy. The operation was performed ten weeks previous, and the patient has fibrous anchylosis, which in course of time will undoubtedly become bony in character.

The surface of the condyles at one or two points presented an ivory-like hardness, and the question which had interested Dr. Bauer and his colleagues had relation to the fact whether or not this was true eburnation, or simply the dense bony tissue immediately underlying the cartilage.

Dr. Wood was of the opinion that the hardened portions referred to were nothing more than sequestra which had been driven into carious bone, inasmuch as those portions could be moved. He asked Dr. B. if there were any sinuses remaining after the operation.

Dr. Bauer stated that in the first case the sinuses closed in four months, and in the last case there were still present very superficial ones, most probably communicating with dead bone. In both cases the ends of the sound bones were wired together. In the last case he would not be surprised to see from time to time small fragments of bone presenting themselves at the opening, as he expected the bridge of bone which was situated between the surface of the femur and the tibia to become necrosed. This same thing happened in the first case.

Dr. Wood stated that he had met with sinuses quite frequently after exsection. He referred to a case he had then under treatment, of exsection of the knee-joint, in which a sufficiently long time had elapsed to allow the ends of the bones to unite, but the sinuses still remained open. He coincided with Dr. B. as to the probability of the bridge of bone referred to becoming necrosed, as the same thing had happened to himself in two instances where wires had been used.

Dr. Post remarked that it was very usual to meet with sinuses after exsection, where no wires were used. In connexion with the subject of eburnation, he referred to a case presented to the society, in which amputation of the thigh was performed for caries of the articular bones of the knee with necrosis of the femur. The portion of the thigh bone sawn through was completely eburnated. The medullary canal at this point, being by this means completely occluded, formed a wall between the caries and the sound bone above. He had seen a number of instances of eburnation of the upper extremity of the thigh bone.

Dr. Wood cited in this connexion the case of a hip-joint which he had exsected last winter. It was originally a case of morbus coxarius, and in connexion with which the superior portion of the shaft to the extent of two and a half inches was eburnated and enlarged in circumference. He also referred to a specimen, previously presented, in which a considerable portion of the tibia was eburnated.

Dr. Post stated that according to his observation necrosis presented less smoothness of surface, and less density, than that which was shown in the specimen exhibited by Dr. Bauer.

Dr. Wood remarked, that he had seen in the phosphoric disease of the jaw, not only the sequestrum but the involucrum a great deal harder, and more dense, than in the portions of supposed eburnation referred to.

Dr. Krackowizer thought that Dr. Bauer's specimen of eburnation showed that exostosis had first taken place, and that the protruding portion had become eburnated.

(*To be continued.*)

American Medical Times.

SATURDAY, FEBRUARY 22, 1862.

THE AMERICAN MEDICAL ASSOCIATION.

The time is drawing near when some action should be had concerning the Annual Meeting of the American Medical Association. In common with many others, we deemed it advisable that the last annual meeting should not be held. The country was at that time in a state of feverish excitement, and there were few who took a lively interest in anything but current events. Had the meeting been held, we doubt if a respectable number of our medical brethren would have been called together. But the condition of our civil affairs has changed, and this change gives a new tone to the feelings and temper of the people. Business is beginning to resume its former channels, and citizens are returning with increased interest to their former pursuits. The question which we now propose to the medical profession is this: Shall not the American Medical Association hold its annual meeting at Chicago, on the first Tuesday of June next?

So far from the present condition of the country constituting reasonable ground for further postponement, there are several reasons which render a meeting of the Association at this time particularly desirable. The civil contest into which we have been unexpectedly precipitated, develops many new subjects of interest and importance, which it behoves the profession to consider. A host of topics relating to military surgery and hygiene are now, for the first time in our generation, brought home to us, and their careful consideration devolves upon the profession.

There will be no dearth of topics which, in the present state of affairs, will spring up in the deliberations of the Association, and which no other organized body of the profession can so appropriately consider. We conceive that the Association owes a duty to the country, the profession, and to itself, which it can only discharge by holding a stated meeting, and remaining in session long enough to deliberate carefully on all the important matters which will come up for consideration. We know that we utter the sentiments of many, when we urge upon the officers of the Association to see to it that the regular meeting in June be seasonably announced.

In connexion with the meeting of the Association, we desire to allude to a matter which seems to us to claim more attention than it is receiving from the profession. The practitioners of Homœopathy are, at the present juncture, putting forth all their efforts to obtain some official or legal recognition of that system of practice. They are striving for this end with somewhat of the same desperate energy with which the rebellious states are seeking to be recognised by the great foreign powers. If it be said that these efforts show the weakness, rather than the strength, of the roving system which has for many years thriven on the credulity of a portion of society, we admit the fact; but, nevertheless, is it well for the profession to remain altogether apathetic? Do we not, by inaction, furnish occasion for misapprehension? Ought we not, as a profession, to do something towards enlightening our legislators, and, to say the least, not leave it to be inferred that we are wholly indifferent to the action which may be taken respecting the applications before our state and general governments?

As pertinent to these inquiries, we would refer to past experience of medical legislation in this state. Twenty-five years ago, the laws regulating the practice of medicine and surgery in the state of New York were admirably adapted to promote the welfare of the profession, and afford security to the public against imposition. It was requisite that every regular practitioner should become a member of the county society. The profession, thus, had the power to determine who should, and who should not, be ranked in the class of regular practitioners. Irregular practitioners were prohibited from practising, by fines, and by imprisonment, if they persisted after having been repeatedly fined. They had no power to collect bills for medical services. The class of empirics known as botanical practitioners, or Thomsonians, raised a hue-and-cry against these restrictive laws. By pertinacious clamor they procured a law authorizing them to practise, provided they prescribed only vegetable remedies, indigenous in this state! But this did not satisfy them; they continued to harass the public and the legislature, until not a few members of the profession, tired of hearing so much about the subject, themselves petitioned to have all the restrictive laws abrogated. The legislature finally granted to the botanics all they asked. This class of empirics was then pretty numerous, and, like the homœopathists of the present day, they had their active adherents. Where is the sect now? In this state it is almost extinct. The concessions which were obtained did not suffice to keep it in existence; perhaps, on the contrary, it suffered a positive injury when they could no longer complain of persecution. But these concessions also damaged the legal position of the profession. The profession were deprived of some of the prerogatives important for the protection of its character, and not less so for the welfare of the public. Now, the members of the profession in this state, had they been disposed, undoubtedly might have thwarted the efforts of the botanics, until the system died out from its intrinsic elements of decay.

This experience seems to us to teach a lesson with regard to the attitude of the profession towards homœopathy at the present time. We can prevent any recognition of this system, either by state legislature or the general government, if we choose to make an exertion for that end. There is no class of men in this country who can exert a stronger influence, by united action, for any important object, than the members of the medical profession; with union and action we can become irresistible. We can make and unmake legislators, governors, and legislatures, if we choose. We have only to organize and act in concert. It is, then, simply a question of propriety or policy, whether we shall, as a profession, take steps to put a quietus on the purposes for which the homœopathists are stirring, or whether we shall remain passive, and suffer then to effect what they can by their importunate demands.

We leave this question for the present with our readers, adding that, if it be desirable for the profession to consider the matter, and, still more, if it be concluded to act, it is advisable not to let the annual meeting of the Association have the go-by.

THE WEEK.

We have called the attention of the profession to the importance of some kind of arrangement on our railway thoroughfares to meet the severe accidents that so frequently befal passengers. We learn that a measure of this kind has been introduced into the Legislature of this State, and has been very favorably received. The following are the outlines of the Bill:—

"It provides for the Association of the Railroad Companies of the State, the same to be a 'body politic and corporate,' managed by a 'Board of Managers,' consisting of the Presidents or such other officers of the associated companies as may be designated by the respective companies and the President of the Association, who shall be a citizen of the State of New York, and not an officer of any railroad company. This association shall make up a guarantee fund of $100,000, chargeable upon each road pro rata as to its passenger traffic, and to enable the association of railroads to meet casualties the respective companies shall, in their discretion, be allowed to charge one-half of a mill per mile to every passenger in first class cars, or one cent for every twenty miles or distance within it in addition to the usual fare. In return for this, each passenger is guaranteed, in case of death, $5,000 to his heirs; in case of loss of a limb, or an incurable injury seriously interfering with usual occupations, $5,000; and for other injuries in proportion, to be hereafter definitely laid down. Surgical stations are also to be furnished along the line of the road, and competent surgeons appointed to attend them when required. This done, the railroad companies associating are to be exempted from all further liability on account of any accident to passengers. At the end of each year, whatever remains of the associated fund, after paying all expenses, shall be divided into two equal parts, the one to accumulate until a permanent fund of $100,000 is created, the other to be equally divided and paid to the trustees of four hospitals, two in the eastern and two in the western part of the State, they undertaking in return to treat gratuitously whatever cases of injury may be sent to them from the railroads. When the $100,000 fund is completed, then the

whole surplus will go to said hospitals. Thus, whatever is obtained from the public will be returned to the public. It might be urged that companies, by such a measure, would be relieved altogether from pecuniary liability, and might become careless. To obviate this, a sort of reward and penalty clause has been introduced. It provides that on an accident occurring on any road, the company shall be fined to the extent of one-third of the amount to which it has rendered the associated fund liable. This fine is to go into a special fund, which, at the end of the fiscal year, is to be divided pro rata as to their contributions to the casualty fund, first charging the respective companies to the extent of the one-third of the claim made by their road on the associate fund. Rewards and penalties are here set forth of the highest importance as securing care and proper equipment on every road of the association. Companies not meeting with any accidents will thus be absolute gainers; while those with whom they occur, not only lose the amount to which they are fined, but have an equal amount deducted from them in their share of general distribution."

This is a matter which should especially interest all surgeons residing on railways. The movement has thus far been principally sustained by Dr. Arnold, of Yonkers, and we hope there will be a concerted action of all interested in this measure.

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The daily papers announce the death of one of our most eminent statesmen, the Hon. Wm. Pennington of Newark, N. J., by accidental poisoning. It seems that he was suffering from fever and was attended by Dr. Parker of N. Y., and Dr. Pennington of Newark; he was ordered eight grains of quinine: the apothecary, by mistake, put up eight grains of morphine, which the patient took at a dose, and which quickly proved fatal. We are not surprised at this accident; indeed, it is more surprising, considering the want of system among druggists in the arrangement of poisons on their shelves, and the gross ignorance of their assistants, that these casualties are not of every-day occurrence. If such a fearful calamity should lead to reform it were not so lamentable, but it will teach a lesson which but one person will heed, and he is the unfortunate apothecary who committed the error.

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A writer in the Boston *Medical Journal* endeavors to vindicate Dr. Morton in his late prosecution for the infringement of his ether patent. It is still asserted that he merely wished to test the validity of his patent in order to compel Government to compensate him. The same plea was alleged when he brought a suit against the U. S. Marine Hospital at Chelsea. Whatever were the motives, then and now, in bringing these suits, the impression left on the minds of those who listened to the arguments of his counsel in the present suit, is decidedly that this was the beginning of the arraignment of public institutions, if not of individuals, for infringing his patent. Dr. Parker was fully justified in saying that the movement in Dr. Morton's behalf in this city was, "on the idea that he had abandoned his patent, otherwise not a thing would have been done."

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In the last English edition of Samuel Cooper's Surgical Dictionary, a singular error has been committed by Mr. Erichsen, the author of the article upon ligature of the Internal Iliac artery. It is stated that this artery was first tied, and that successfully, in 1828, in the United States, by "Mr. Hudson of New York." To be correct, it should have read, by "S. Pomroy White, M.D., of New York; formerly of Hudson, in the State of New York." As Dr. White performed this important operation at a distance from his residence, and attended the patient without receiving any pecuniary compensation, we think the credit of the operation should not be accorded to Mr. Hudson.

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The influence of the war upon Medical Education remains an unsettled problem. There are many reasons why it should increase the number of students; such as the great demand for surgeons in the army and navy, and the vacancies which have occurred in country towns by the enlistment of older practitioners in the army. As yet, we have no reliable index of the changes which are to come. We may notice as facts which give no definite conclusion to this question—that the Castleton Medical College (Vt.) has given up its present Spring course, on account of our civil troubles, while the Medical College of Ohio is about to commence an Extra Regular Course, to meet the wants of the army.

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We commence publishing in this number the official transactions of the N. Y. Pathological Society. No society is attended more profitably than this by the practitioner, for none is so devoted to the discussion of practical questions. These transactions are always of interest, and will now, we believe, prove doubly interesting under the supervision of the committee of publication, which is composed of the following members:—Drs. Clark, Krakowizer, Post, and Shrady.

Correspondence.

ENGLISH PHYSICIANS ON TYPHOID FEVER.

[To the Editor of the American Medical Times.]

Sir:—The death of Prince Albert, which, according to the London *Medical Times and Gazette*, was caused by typhoid fever, has given rise to a renewal of the discussion concerning the first recognition of this disease as a distinct affection from typhus fever. In questions of priority in medical discoveries, English physicians have more than once assumed the credit which belonged to American observers, and have sometimes even appeared to consider our claims as scarcely entitled to a candid examination.

In the Journal above referred to, Dec., 1861, p. 670, there is a communication from Dr. A. P. Stewart, containing the following words: "My investigations were made from 1836 to 1839, and were followed up by the publication of my conclusions, first at two meetings of the Parisian Medical Society, in April, 1840, and then in the *Edinburgh Medical and Surgical Journal* for October in the same year. What influence that paper may have had in the formation of medical opinion in Europe and America, on the subject now attracting such universal attention, during the nine years that elapsed before the appearance of Dr. Jenner's well known papers, I leave to the decision of others, who are probably better informed on this subject than myself."

That Dr. Stewart should assume his paper to have had any special influence, beyond that which it acquired as corroborating previous conclusions, is singular, inasmuch as two months before its presentation a memoir was read in the same society, by Dr. N. C. Barlow, which covers nearly the whole ground (*Lancet*, Feb. 29, 1840). But to neither of these gentlemen belongs the honor which one of them appears to attribute to himself. The distinctive peculiarities of typhus and typhoid fever were determined by Drs. Gerhard and Pennock, of Philadelphia, who published an account of them in the *American Journal of Medical Sciences*, for Feb. and Aug., 1837. These papers were republished in the *Dublin Journal of Medical Science*, Sept., 1837,

p. 148, etc., analysed in the *Medico-Chirurgical Review* for Oct., 1837, p. 553, and translated in *l'Expérience*, a Parisian Journal, in 1838. Consequently they must be presumed to have been well known to Dr. Stewart and all other physicians.

The writer of the present communication, having observed the typhus epidemic in the Blockley Hospital, described by the physicians just named, afterwards made a special study of typhoid fever in the wards of M. Louis, in Paris, and had opportunities of observing typhus, with Vulpes in Naples, Tweedie in London, Alison in Edinburgh, and Graves in Dublin. The results of these observations were contained in a paper, of which Valleix speaks as follows: "In an unpublished memoir of Dr. Stillé, an *interne* of Dr. Gerhard, during the prevalence of the epidemic of Philadelphia, which was read before the Medical Society of Observation (September 14 and 28, 1838), and which we have before us, the two diseases are compared, symptom by symptom, and lesion by lesion; and apart from the phenomena of fever, common to all febrile affections, the opposite of what is observed in the one is sure to be presented in the other." (*Archives Gén.*, Feb., 1839, p. 213.) M. Valleix concludes his essay with the following among other inferences: "English and American typhus is a different disease from typhoid fever." A few months later, the same physician published (*Archives Gén.*, Oct., 1839, pp. 129 and 265) an analysis of thirteen cases of typhus, observed in London by Dr. G. C. Shattuck, of Boston, which fully confirmed the conclusion just stated. A paper, founded on the same cases, was afterwards printed in this country, by Dr. Shattuck (*Phila. Med. Exam.*, Feb., 1840, p. 133). It was after the whole of these publications that Dr. Barlow and also Dr. Stewart communicated their observations to the Parisian Medical Society. The apparent want of candor in the paragraph which we have quoted from the *Times and Gazette*, is therefore, for its author's sake, very much to be regretted; the more so, indeed, as some of his own countrymen, Drs. Murchison and Jenner, for instance, have discussed the subject in a more generous spirit.

It argues but little for the sagacity of Englishmen, pursuing medical studies at Paris, that for so many years after the publication of Louis's work on typhoid fever, they should have remained blind to the striking differences between this affection and typhus, their ordinary endemic fever; singular that it should have been reserved for a foreigner, and he an American, to furnish the contemporary English medical profession with the first demonstration of their differences; and most singular that they should have persisted in their wilful blindness, although they possessed, in a work as old as Huxam's, a clear description of "slow nervous fever," on the one hand, and of "putrid malignant fever" upon the other. Whoever has observed the *vis inertiæ* opposed by some of their own countrymen to the recent demonstrations of Jenner, Murchison, and other enlightened pathologists, will feel no surprise that even now an article occasionally appears in their journals betraying a singular hankering after the old confusion and obscurity which reigned so long in English pyretology. A. S.

AN EXPLANATION.

[To the Editor of the American Medical Times.]

Sir:—I received a few days ago from Dr. Daniel H. Tuke, a reclamation relating to the memoir which appeared in the Medical Times, on Moral Insanity. Here follows the extract from the letter containing it. ". . . . . You will, I am sure, allow me to correct an error into which you have fallen; I do share Ray's and Hoffbauer's opinions most heartily, and *quoted them because I approved of them.* By 'unqualified'* I mean simply that Hoffbauer's judgment was so decided that he does not qualify his statement by any exception or doubt. I never supposed the word would be understood in an unfavorable sense. I conclude you supposed I intended to convey the idea of *unjustifiable* assertion. Had I read your remarks a few weeks earlier, I should have been able to make the statement clearer, as the second edition was passing through the press; now, however, I must wait till another edition (should it ever be called for), when I will make use of an expression which cannot be misunderstood. Should you have an opportunity of explaining this misapprehension among your medical friends, I should be obliged. . . . . "

Now, dear Sir, I most readily acknowledge my error, since my honorable correspondent has explained the sense of that word; before that, puzzled to understand its signification in Dr. Tuke's sentence, I had recourse to Todd's and Johnson's Dictionary, and found that it meant "not fit: divested of qualification." How could I, unaware of the new sense, find that it might signify just the reverse of what Dr. Johnson says, namely,—not wanting any qualification. If it is my own fault, by inaccurate knowledge of the English, with which I hope to become more familiar, I find my excuse in saying, that in such an important work as the *Manual of Psychological Medicine*, which I consider as a standard work, not too much care can be taken in its close examination. Yours, etc.,

I. Parigot, M.D.

Sing Sing, February 10, 1862.

* Page 179 of the *Manual of Psychological Medicine*, by J. C. Bucknill and D. H. Tuke. London: 1858.

VETERINARY SURGEONS IN THE ARMY.

[To the Editor of the American Medical Times.]

Sir:—It has occurred to me, in connexion with the army, that perhaps a few remarks on the subject of Veterinary Surgeons might be of use to some of the numerous readers of your valuable journal. I have for many years been impressed with the idea that this country is peculiarly fitted for the development of that arm of the military service called cavalry. The extent of surface to be protected by an army, the varied uses that this branch of the service can be put to, together with the absolute necessity that there exists in civil life for the cultivation and development of the noble animal, the horse; these are some of the considerations which have long induced me to feel an interest in the care and protection of this animal. It is well known that the governments of Europe (England, France, and Germany especially) pay particular attention by legal enactments and public contributions to these subjects. Rome, it is said, although long desiring it, did not succeed in conquering Carthage until she had acquired a superiority over the latter in cavalry. It will be remembered also, that the horse is a very delicately constituted animal, and in his higher developments demands almost as much care and protection from the elements as man himself.

The cavalry arm of the service has, until lately, it seems, not been a favorite arm with our generals. The present rebellion has developed more forcibly than ever before the absolute necessity of a large cavalry force.

I have watched with some degree of interest (having been connected with the cavalry in the army), the character, wants, and advantages of this military power. The first thing which has attracted my attention is the want of size in the American horse. As seen in the volunteer service he is deficient in breadth of beam; in other words, he lacks bone and muscle. He is better calculated for speed and light service than for the heavy drudgery of the dragoon or cavalry duty, and especially for artillery service. Of course the strongest and best horse found among us is the Morgan horse, and the best animals for the service doubtless come from this stock; but a large percentage of our horses, are Messenger, and similar breeds, which combine grace with speed, without a great deal of strength. The splendid cavalry horses found among the Guards of the thrones of England, France, Germany, and Russia, are doubtless the result of long and intelligent training and breeding sustained by bountiful governmental patronage. Napoleon seemed to be fully alive to the importance of this subject, and his Harras remain to this day scattered

through France, in testimony of his wisdom and foresight. This is my first observation in reference to my subject.

My second course of remarks has reference to the condition of our horses when first brought into the army, and for some time afterwards. These horses are generally young, some of them not fully grown, and are in good order. Many of them have not had the ordinary colt's disease, the distemper, or any of the common affections of the youthful horse. The consequence is, that when brought in contact with so many others, these soon contract the distemper, and require immediately proper care and attention to carry them safely through the disease. I have seen young horses, otherwise well organized, with good points, absolutely rot, exposed to the weather, without proper feed or any medical attention in this disease. I have often seen large sloughs under the jaws and about the neck wasting the strength of the horse, merely for the want of opening the abscesses when formed. I have seen curable cases of glanders allowed to run on to a fatal termination without care or attention. I have seen slight injuries of the fetlocks and other joints allowed to continue until very valuable horses were perfectly worthless. I have seen chronic ophthalmiæ drag on from week to week, and month to month, ultimately producing blindness, which might have been easily cured by timely medical attention; and finally, I have seen horses by the hundred, suffer from colds, bowel affections, and starvation, for the want of a very little care at the proper time and in the proper direction. These horses cost the government one hundred and twenty-five dollars apiece. The loss therefore of but few of them would pay an ample salary to a well educated veterinary surgeon to every regiment in the service. I am convinced that the government would have saved in the single regiment to which I have been attached, in the five or six months of its existence, at least four times the annual salary of a good veterinary surgeon, if such an officer had been attached to it. The veterinary officers are denominated by the "Regulations," farriers, one of whom is assigned to each company in a regiment. From personal observation I should say positively that these farriers are totally incompetent to the duties of taking care of the health of the horse. This is so obvious to some of the commanders that the presumptuous pretenders are unceremoniously dismissed from the service by them. A good veterinary surgeon, well educated, in each regiment, with power to nominate his assistants in each company, is, in my opinion, an absolute necessity. The efficiency and reliability of this arm of the service demand it. Economy in public expenditure demands it; and common humanity for the welfare of this noble but much abused servant of man, cries aloud for at least this much protection against the ignorance and brutalities of charlatans and pretenders to veterinary science. You see, Mr. Editor, that I have reached my subject at last, and I must say that I cannot explain the unaccountable apathy exhibited by both the government and the people on this subject. Pennsylvania led the way in giving a charter for a veterinary college some seven years ago. Massachusetts, Ohio, and New York have followed her example, and have chartered similar institutions. The general government had perhaps better take it up itself, and establish a college in Washington for the education of veterinary surgeons. Be this as it may, if the proper laws were passed, like those of Europe, recognising and properly remunerating such a body of men as veterinary surgeons, they would soon come into existence. I have been informed from reliable authority, that ten per cent. of the live stock of this great agricultural country is annually lost to its owners for want of proper medical attention and advice. This is not the time or place to examine the bearings of this question in their relations to the other interests of the community; but it is a well established fact among those who have examined the matter, that nothing of equal importance is so much neglected in this country as veterinary science, and I may add, from known facts, that the facilities for its cultivation are almost unlimited. In reference to the army itself, the government should look after not only the ordinary causes of diseases and loss, but the proper training of its cavalry.

Respectfully yours,

JAMES BRYAN,

Late Surgeon to "Cameron Dragoons," Pa. Vols.

RICHARDSON'S BRIGADE MEDICAL CLUB.

Head Quarters, 87th N. Y. L., RICHARDSON'S BRIGADE, CAMP MICHIGAN, NEAR ALEXANDRIA, VA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I am happy to be able to inform you that the medical officers of this brigade have organized a Medical Club, for the purpose of discussing interesting subjects connected especially with military hygiene and surgery.

The society has already existed for more than a month, and meets once a week, in rotation, at the quarters of the regimental surgeons; the discussions are carried on conversationally, the only formality observed being the appointment of a chairman at each meeting, the secretary being permanent. A social reunion closes the proceedings of the evening. The constitution, which is very simple, admits to membership, first, the surgeons and assistant surgeons of the brigade, ex officio; and second, graduates or students connected with the hospitals or ambulances. The subjects already under discussion have been: The position of the medical staff and their attendants, ambulances, etc., during engagements; their duties at the same time; primary or secondary amputations; conservative surgery, including resections, etc., etc. In addition to the value of such discussions, another advantage to be derived from frequent intercourse is the greater degree of intimacy which ought to exist between medical men, who are to act in concert during the trying ordeal of a murderous conflict, and the knowledge of individual characters, their excellences and peculiarities, so necessary to brigade surgeons and medical directors, who would be otherwise ignorant of the *strong points* of those under their command. To Dr. D. W. Bliss, our brigade surgeon, we are indebted for this useful combination of the medical men of the brigade. It remains with ourselves to profit by its manifest advantages.

ABSTRACT OF QUARTERLY REPORT OF SICK AND WOUNDED FOR THE QUARTER ENDING DEC. 31, 1851.

Fevers.—Febris continua communis 21, intermittens quotidiana 34, intermittens tertiana 3, remittens 6, typhoides 19; death 1, in general hospital. Ephemeral cases of this class, mixed and undetermined, 96. Total 179, death 1.

Diseases of the Organs connected with the Digestive System.—Colica 4, constipatio 116, diarrhœa acuta 140, dysenteria acuta 15 (very mild and differing little from diarrhœa), dysenteria chronica 1, gastritis (subacute) 3, gastro-enteritis 1; death 1, in general hospital. Tonsillitis 2. All other diseases of this class 8. Total 290, death 1.

Diseases of the Respiratory System.—Bronchitis acuta 41, Catarrhus 156, laryngitis 1, phthisis pulmonalis 3 (discharged), pleuritis 2, pneumonia 2, other diseases of this class 24. Total 229.

Brain and Nervous System.—Neuralgia (miasmatic) 10, tic douloureux 2. Total 12.

Urinary and Genital Organs and Venereal Affections.—Bubo syphiliticum 2, orchitis (from contusion) 1, gonorrhœa 1, syphilis primitiva 2, syphilis consecutiva 1. Total 7.

Fibrous and Muscular Structures.—Lumbago 3, rheumatismus acutus (muscular) 13, other diseases of this class 1. Total 17.

Abscesses and Ulcers.—Abscessus (trifling) 4, fistula in ano (cured by operation) 1, paronychia 1, phlegmon 2, ulcers (trifling) 5, other diseases of this class 6. Total 19.

Wounds and Injuries.—Ambustio 1, contusio 1, hernia 2 (1 discharged, the other ordered "to wait for further orders with his regiment." He is, however, in constant danger, as I have no proper trusses to meet his case, those I have

being all of one size, and so large as to be utterly unfit for ordinary mortals); sublunatio 22, vulnus incisum 3, vulnus contusum vel laceratum 4, vulnus sclopeticum 1, other diseases of this class 1. Total 37.

Diseases of the Eye.—Conjunctivitis 2, other diseases of this class 7. Total 9.

All other Diseases. Debilitas 18, ebrietas 2, hæmorrhois (mild cases) 5, prolapsus ani and hæmorrhois 1 (discharged), morbi cutis 12, odontalgia 6, scrofula 1, morbi varii 6. Total 51.

Total taken sick during quarter 851, deaths 2.

General Observations.—First, with respect to fevers. These were generally simple continued fevers, owing to functional derangements consequent on exposure and indiscretion. Occasionally, in weak or scrofulous subjects, they assumed a typhoid character, but of genuine typhoid (enteric) fever, such as I have been accustomed to see in the New York hospitals, I have not had a single case in my regimental hospital. Two patients, sent to the general hospital, were said to have died of typhoid fever, but one, I know, had gastro-enteritis in camp from over free indulgence. He was also reported to have had diphtheria, and died, no doubt, with typhoid symptoms. The treatment consisted of nourishment and stimulants. The most numerous and obstinate diseases of this class were miasmatic, owing to the unhealthy location of one or two of our camps, especially near Fort Albany, within sight, smell, and taste of all the pestiferous exhalations emanating from the swamps and *slaughter houses* on the Virginia side of the Potamac, extending from the Long Bridge to Alexandria. But a barrel of quinine bitters received from the Sanitary Association kept the regiment on its legs, and brought down the sick list from seventy to twenty-five in a few days, at a time, too, when the poison assumes its deadliest malignity. Here quinine and whiskey were not only the cure, but the prophylactic; emetics and cathartics were generally used in the commencement of treatment.

With regard to the prophylactic powers of quinine, which I have heard some to doubt and even deny, I must say that I am firmly convinced of its great power as such, having had the most unmistakable evidence of the fact, after extensive use and trial, not only at the time above alluded to, but on other occasions, when the regiment was exposed to miasma. My experience may be summed up briefly thus: It cures almost all miasmatic diseases; it renders mild, and in a great measure abortive, what would be otherwise a determined case of miasma; it prevents miasma, when used as a prophylactic.

So far, I have not seen a genuine case of articular rheumatism; in fact, I have seen nothing appertaining to it but local muscular pains, produced by exposure to damp, while the soldier lay fatigued on the ground.

A case of fistula in ano was cured permanently by operation, the patient reporting himself for duty in a few weeks.

A case of incipient hernia was treated by rest and counter-irritation of the inguinal canal externally, which produced adhesive inflammation there in the most effectual manner.

The average mean strength of the regiment for the quarter was 732, which includes only eight companies, two others being detailed for duty at Fort Washington, Md. It is mainly composed of Irishmen, generally mechanics, clerks, farmers' help, and other laborers. There are about 500 in the regiment whom I have rarely or never seen on the sick list, except when we had them vaccinated at the Battery, New York.

Since the regiment came into service, it has been mainly engaged in the hardest duty, such as picket duty and working on the forts in the neighborhood of Washington. In this way we have had a "hand in" building Forts Albany, Richardson, Erin (on Munson's Hill), Lyon, etc., while our pickets were "bustling" up the enemy on the outposts.

WILLIAM O'MEAGHER, *Surgeon.*

January 21, 1862.

FOREIGN MEDICAL NOTES.

THE great theme now in Paris is ventilation, and as there is no one question in our science more settled than that pure air is essential in both health and disease, it is strange indeed that the subject has been so much overlooked. And, besides being poorly ventilated, the hospitals are but scantily lighted. The Lariboisière and some others of the newest may be exempted from this fault, but in all the lower wards of hospitals in the "Quartier Latin" the patients are seen through a dingy twilight. "*Lumière si vous plait*" is a common cry from the professor, and up comes the attendant with a tallow candle in his hand (10 A.M.), to throw light perhaps on a case of hospital gangrene! The majority of the professors are, it would seem to me, in favor of this lack of light and air, as their amphitheatres, for instance, can be readily ventilated if they so choose; but no, such are generally as foul as lager-bier saloons in the basement. And as those students who are indigenous appear to relish it quite as well as the professors, all that we foreigners can do is to set it down as *un trait français*, and be resigned. The people in general seem much more fearful of "taking cold" than we do, for every second man in the street has his chin in a comforter, and Malgaigne invariably sits down to lecture wrapped up as though on a snow-bank. On the other hand, during summer weather every one is out of doors as much as Indians are, and almost as sparsely dressed. They seem fond of the two extremes of air to live in—the very putrid or the very pure—the former being met with in the *cafés*, and the latter in the *jardins*, which, as everybody knows, are the two popular resorts of Parisians.

But, bad as the hospitals are at present, they will compare charmingly with what they were. The following extract I take from an ancient report which has fallen into my hands, on the condition of the Hôtel Dieu. It was drawn up before the revolution of '89, and in order not to deprive it wholly of its quaintness in style, I will translate word for word as far as possible:—

"They (committee) have remarked four, five, and nine sick in one bed. They have seen the dead huddled with the living; wards where the passages are narrow, where the air stagnates charged with humid vapors, and where the light penetrates but feebly. The commissioners have seen also the convalescent in the same wards with the sick, the dying put with the dead, and many forced to get naked from bed to the window, winter as in summer, to breathe the exterior air in bridge St. Charles. They have seen for the convalescent a ward in the third story, to which the approach is made by traversing the ward for those taken in small-pox; the ward of the maniacs contiguous to that of the unfortunates who have suffered the most cruel operations, and who cannot hope for repose in the neighborhood of these madmen, whose frenzied cries are heard day and night; in the same ward the contagious maladies with those that are not; women attacked with small-pox put in with those having fevers. The apartment where they trepan, cut for stone, and amputate members, contains equally those being operated upon, those that are to be operated upon, and those that have been already. The operations are made in the middle of the room even, where the patients can well see the horrible preparations, and hear the cries of torment; those whose turn it is the day following, have before them a *tableau* of their future sufferings, and those who have already passed this terrible ordeal, judge how profoundly they ought to be shocked by these cries of pain! These terrors, these emotions are received in the midst of accidents from inflammation or suppuration (*au milieu des accidents de l'inflammation ou de la suppuration*) to the prejudice of recovery and hazard of life. La Salle St. Joseph is consecrated to women *enceintes*, and married or unmarried, sound or diseased, they are there *toutes ensemble*, three or four in this state lying in the same bed, exposed to sleeplessness, to the contagion of tainted bedfellows, and in danger of injuring their infants. The

women *accouchés* are placed four or more in one bed at different epochs of their delivery. The heart grieves at the bare idea of this situation where the poor women mutually infect, and the most part perish or leave languishing. A thousand causes particular and accidental unite each day with causes general and constant of a corrupt air, and force to the conclusion that Hôtel Dieu is the most unhealthy and the most inconvenient of all the hospitals, and that two die out of nine."

No improvements were begun in this hospital till the beginning of this century; but its position must debar it from ever ranking higher, or worthy of further expenditures. The average number of deaths now is one in seven, thus showing considerable amelioration.

M. Davenne, in the Academy of Medicine, accepts the statistics of Malgaigne, which show that the proportion of deaths in ratio with the number operated on surpasses greatly that of the London hospitals; but, while admitting this, M. Davenne is persuaded that as much blame should be attached to *after treatment* as to the bad condition of the hospitals. Better not exculpate the hospitals, M. Davenne, better confess to bad buildings than bad treatment.

M. Renault, Professor of Hippopathology, furnished some interesting facts in support of fresh air for animals. He stated that the Veterinary Hospital at Alfort, previous to 1828, was so miserably ventilated that every operation, even to bleeding, became complicated with accidents of gravity, and for a horse to enter was almost certain death. Since this epoch the buildings have been reconstructed with a view to aeration, and to cure is now the rule. The *infection purulente*, formerly so common, is now extremely rare, especially since it has become the practice to do the dressings by the light of day.

It appears that Professor Traube, of Berlin, has found in another case of aneurism in the aortic arch, by means of the laryngoscope, the condition of the larynx as follows:—Moderate congestion of mucous membrane of epiglottis, of arytenoid cartilages, and of the vocal cords. The glottis larger than normal. On the patient pronouncing the letter *e*, the left vocal cord rested immovable, while that on the right approached slower to the median line than natural. Movements of arytenoid cartilages similarly modified. Besides, the glottis did not sensibly enlarge during deep respiration. CYGNET.

January 15, 1862.

Medical News.

SANFORD HALL, FLUSHING, LONG ISLAND, N. Y.—Since the recent death of Allan Macdonald, Esq., one of the proprietors of this Establishment, the following brief statement to its patrons and friends, of its present condition and prospects, has been made. The seventeen years of prosperity and usefulness which the Institution has enjoyed under the direct control of its founder, Dr. James Macdonald, and, since his death, under that of his brother, the late Mr. Allan Macdonald, furnish the best proof that the original plan of the Establishment was wise in its conception, and has been prosecuted with fidelity and success. This plan, it need hardly be added, it is the aim of the proprietors to pursue and to perfect. Mrs. Dr. Macdonald will remain personally identified with the Institution, as the representative of the interests and the aims of her honored husband. Dr. J. W. Barstow, having removed his family to the Hall, will continue, as heretofore, the Resident Physician. Dr. Benjamin Ogden of New York, whose long experience in the treatment of mental disease is well known, will also retain his connexion with the Institution, as Consulting Physician; visiting the patients regularly twice every week, or more frequently if desired. It is believed that under the personal superintendence above indicated, the management of the Institution will continue acceptable, and that the advantages which it has hitherto offered for the relief and treatment of the diseased mind, will be in all respects undiminished.

SOCIETY OF ARMY SURGEONS AT BALTIMORE.—The Surgeons of this Division convened at the office of the Medical Director of the City of Baltimore, on Wednesday the 12th instant, and proceeded to organize a Society for Improvement in Military Surgery. Surgeon Simpson, of the Regular Army, was called to the chair, and Assistant Surgeon C. C. Lee appointed Secretary. On motion, Surgeons Gilbert, Cox, Read, Gilman, and Taylor, were appointed a committee to draft rules for the regulation of the body, and also to nominate permanent officers for the same. The committee reported the following gentlemen as officers of the Society: For President, Jacob Simpson, United States Army; Vice-President, Brigade Surgeon John McNulty, United States Army; for Secretary, Robert Bartholow, Assistant Surgeon, United States Army. On motion of Brigade-Surgeon Cox, it was resolved that members of the medical corps on duty out of Baltimore, either in this or other divisions, be cordially invited to a participation in the deliberations of the Society, whenever their convenience may allow. On motion the Society was ordered to meet every Wednesday, at the office of the Medical Director of the Division, at 3 P.M. On motion the proceedings were ordered to be published in the city papers.

DEATH OF DR. LUTHER V. BELL.—We regret to hear the death of Dr. Bell, late a Brigade Surgeon in Gen. Hooker's division. Dr. Bell has long occupied a prominent position among the students of Psychological Medicine in this county. He was for many years the Resident Physician of the McLean Asylum, Mass., and at one time the President of the Association of Physicians of Lunatic Asylums. He was also an author of considerable celebrity. On the breaking out of the rebellion he joined a Massachusetts regiment as surgeon, was at the battle of Bull Run, and subsequently received the appointment of Brigade Surgeon.

PARALYSIS FROM THE VIPER'S BITE.—Dr. Guyon has sent in an interesting communication on the effects of the sting of a horned viper (Cerastes Ægyptiacus), on an Arab of the oasis of Laghouat, one hundred and twenty leagues south of Algiers. After the lapse of a month, during which the wound had healed, the patient was attacked with paralysis on the side opposite that where the sting had been inflicted. The author quotes several instances of this curious fact of paralysis ensuing after the bite of a reptile, and on the side opposite to that which had received the wound.—*Lancet.*

DROWNING AND SUICIDE.—Since July, 1861, the number of cases which have come under the cognizance of the Royal Humane Society, in which the lives of one or more persons were imperilled, was 146; of these 128 persons were successfully treated, but 18 were beyond recovery. There had been 13 cases of attempted suicide. The number of Hyde-Park cases had been 19, of which 17 had been successfully treated by the officers of the Society, but 2 were found drowned. The number of cases of attempted suicide was 4.—*Lancet.*

MODEL REGISTRATION.—In the town of Bridgeport, Ct., the annual mortality for 1861 is reported as 257; 62 of the deaths (more than one-fourth of the whole) are registered under the head of "*unknown causes.*" It is proper to state that the Registrar is not a medical officer, and also that the various cemeteries are not under the control of the municipal authorities.

ROYAL FREE HOSPITAL.—The Corporation of the City of London have voted the sum of two hundred guineas as a donation to the funds of this hospital.—*Lancet.*

DR. LALLEMAND, Professor of the Military Hospital of Val-de-Grâce, well known as the author of several scientific works, is appointed Chief Physician to the Army about to proceed to Mexico.—*Lancet.*

DR. GEO. C. BLACKMAN, of Cincinnati, resigned his position as Brigade Surgeon early in January, in order to attend to college duties.

ERRATUM.—In the third line of last paragraph of Dr. Horr's paper in the No. for Feb. 8, the word "*report*" occurs, where the word "*repeat*" was written.

PUBLICATIONS RECEIVED.

Notes on the Surgery of the War of the Crimea, with Remarks on Gunshot Wounds. By George H. B. Macleod, M.D., F.R.C.S. Philadelphia: J. B. Lippincott & Co., 1862.

Commentaries on the Surgery of the War in Portugal, Spain, France, and the Netherlands. By G. J. Guthrie, F.R.S. Sixth edition. Philadelphia: J. B. Lippincott & Co., 1862.

METEOROLOGY AND NECROLOGY OF THE WEEK IN THE CITY AND COUNTY OF NEW YORK.

Abstract of the Official Report.

From the 10th day of February to the 17th day of February, 1862.

Deaths.—Men, 84; women, 101; boys, 110; girls, 108—total, 403. Adults, 185; children, 218; males, 194; females, 209; colored, 12. Infants under two years of age, 133. Children reported of native parents, 28; foreign, 159.

Among the causes of death we notice:—Apoplexy, 15; Infantile convulsions, 26; croup, 8; diphtheria, 11; scarlet fever, 28; typhus and typhoid fevers, 8; cholera infantum, 0; cholera morbus, 0; consumption, 73; small-pox, 11; dropsy of head, 19; infantile marasmus, 16; diarrhœa and dysentery, 5; inflammation of brain, 7; of bowels, 10; of lungs, 18; bronchitis, 3; congestion of brain, 9; of lungs, 0; erysipelas, 5; whooping cough, 4; measles, 5. 216 deaths occurred from acute disease, and 29 from violent causes. 280 were native, and 123 foreign; of whom 75 came from Ireland; 4 died in the Immigrant Institution, and 42 in the City Charities; of whom 16 were in the Bellevue Hospital.

Abstract of the Atmospherical Record of the Eastern Dispensary, kept in the Market Building, No. 57 Essex street, New York.

Feb. 1862	Barometer. Mean height.	Barometer. Daily range.	Temperature. Mean	Temperature. Min.	Temperature. Max.	Difference of dry and wet bulb, Thrm. Mean	Difference of dry and wet bulb, Thrm. Max.	Wind.	Mean amount of cloud.	Humidity Saturation, 1000
	In.	In	.	.	.	.	.			
9th.	30.00	.10	28	21	35	5	9	W.	2	681
10th.	30.10	.11	22	15	30	6	9	N.W.	.07	500
11th.	29.77	.20	32	22	40	4	6	N.	5	799
12th.	29.78	.11	38	33	43	6	9	W.	.06	661
13th.	29.96	.21	35	30	40	6	9	W.	4	650
14th.	29.87	.17	34	27	42	5	8	W.	7	670
15th.	29.99	.07	23	18	25	3	4.5	N.E.	9.5	770

REMARKS.—9th, Variable sky A.M. 10th, Wind fresh; very light snow, evening. 11th, Cloudy P.M. 12th and 13th, Very mild, and clear weather. 14th, Fog A.M. with very light rain; cloudy A.M.; variable P.M. 15th, A snow storm commenced at noon, lasting six hours; three inches on a level; melted 0·17 inch.

MEDICAL DIARY OF THE WEEK.

Monday, Feb. 24.
- NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Thomas, half-past 1 P.M.
- EYE INFIRMARY, 12 M.

Tuesday, Feb. 25.
- NEW YORK HOSPITAL, Dr. Parker, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Loomis, half-past 1 P.M.
- OPHTHALMIC HOSPITAL, Drs. Stephenson and Garrish, 1 P.M.

Wednesday, Feb. 26.
- NEW YORK HOSPITAL, Dr. Cock, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Sayre, Is. Hos., half-past 1 P.M.
- EYE INFIRMARY, 12 M.
- PATHOLOGICAL SOCIETY, half-past 7 P.M.

Thursday, Feb. 27.
- NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Taylor, half-past 1 P.M.
- OPHTHALMIC HOSPITAL, Drs. Stephenson and Garrish, 1 P.M.

Friday, Feb. 28.
- NEW YORK HOSPITAL, Dr. Parker, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Flint, half-past 1 P.M.
- EYE INFIRMARY, 12 M. Dr. Noyes's Lecture, half-past 1 P.M.
- SURGICAL SECTION, Dr. Wood's, 2 Irving Pl.

Saturday, March 1.
- NEW YORK HOSPITAL, Dr. Cock, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Wood's Clinic, 1 P.M.
- OPHTHALMIC HOSPITAL, Drs. Stephenson and Garrish, 1 P.M.

SPECIAL NOTICE.

SURGICAL SECTION.—*This Section will meet next Friday evening, at the house of the Chairman, Dr. James R. Wood: Subject,* TRACHEOTOMY, *&c.*